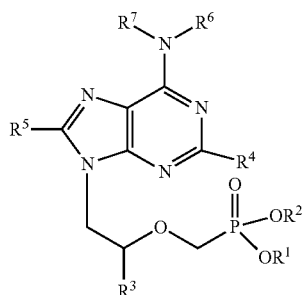


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claims without departing from the teachings thereof. All such modifications are intended to be encompassed within the claims of the invention.

Embodiments of the Invention:

A1. A pharmaceutical composition comprising an effective amount of a compound of the formula:



wherein  $R^1$  and  $R^2$  are independently selected from H,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl,  $C_6$ - $C_{20}$  aryl,  $C_6$ - $C_{20}$  substituted aryl,  $C_6$ - $C_{20}$  arylalkyl,  $C_6$ - $C_{20}$  substituted arylalkyl, acyloxymethyl esters  $-\text{CH}_2\text{C}(=\text{O})\text{R}^9$  and acyloxymethyl carbonates  $-\text{CH}_2\text{C}(=\text{O})\text{OR}^9$  where  $R^9$  is  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl,  $C_6$ - $C_{20}$  aryl and  $C_6$ - $C_{20}$  substituted aryl;

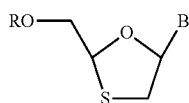
$R^3$  is selected from H,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl, or  $\text{CH}_2\text{OR}^8$  where  $R^8$  is  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  hydroxyalkyl and  $C_1$ - $C_6$  haloalkyl;

$R^4$  and  $R^5$  are independently selected from H,  $\text{NH}_2$ ,  $\text{NHR}$  and  $\text{NR}_2$  where R is  $C_1$ - $C_6$  alkyl; and

$R^6$  and  $R^7$  are independently selected from H and  $C_1$ - $C_6$  alkyl;

or a physiologically functional derivative thereof;

in combination with an effective amount of a compound of the formula



wherein B is selected from adenine, guanine, cytosine, uracil, thymine, 7-deazaadenine, 7-deazaguanine, 7-deaza-8-azaguanine, 7-deaza-8-azaadenine, inosine, nebularine, nitropyrrole, nitroindole, 2-aminopurine, 2-amino-6-chloropurine, 2,6-diaminopurine, hypoxanthine, pseudouridine, 5-fluorocytosine, 5-chlorocytosine, 5-bromocytosine, 5-iodocytosine, pseudocytosine, pseudoisocytosine, 5-propynylcytosine, isocytosine, isoguanine, 7-deazaguanine, 2-thiopyrimidine, 6-thioguanine, 4-thiopyrimidine, 4-thiouracil,  $\text{O}^6$ -methylguanine,  $\text{N}^6$ -methyladenine,  $\text{O}^4$ -methylthymine, 5,6-dihydrothymine, 5,6-dihydrouracil, 4-methylindole, and a pyrazolo[3,4-D]pyrimidine; and

R is selected from H,  $C_1$ - $C_{18}$  alkyl,  $C_1$ - $C_{18}$  substituted alkyl,  $C_2$ - $C_{18}$  alkenyl,  $C_2$ - $C_{18}$  substituted alkenyl,  $C_2$ - $C_{18}$  alkynyl,  $C_2$ - $C_{18}$  substituted alkynyl,  $C_6$ - $C_{20}$  aryl,  $C_6$ - $C_{20}$  substituted aryl,  $C_2$ - $C_{20}$  heterocycle,  $C_2$ - $C_{20}$  substituted heterocycle, phosphonate, phosphophosphonate, diphosphophosphonate, phosphate, diphosphate, triphosphate, poly-

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ethyleneoxy or a physiologically functional derivative thereof; and

a pharmaceutically acceptable carrier.

B2. A composition of embodiment A1 wherein, in formula 1,  $R^1$  and  $R^2$  are independently selected from H,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl,  $C_6$ - $C_{20}$  aryl,  $C_6$ - $C_{20}$  substituted aryl,  $C_6$ - $C_{20}$  arylalkyl,  $C_6$ - $C_{20}$  substituted arylalkyl, acyloxymethyl esters  $-\text{CH}_2\text{C}(=\text{O})\text{R}^9$  and acyloxymethyl carbonates  $-\text{CH}_2\text{C}(=\text{O})\text{OR}^9$  where  $R^9$  is  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl,  $C_6$ - $C_{20}$  aryl and  $C_6$ - $C_{20}$  substituted aryl; and  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are independently H or  $C_1$ - $C_6$  alkyl.

C3. A composition of embodiment A1 wherein, in formula 2, B is cytosine or a 5-halocytosine.

D4. A composition of embodiment A1 wherein, in formula 1,  $R^1$  and  $R^2$  are independently selected from H,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl,  $C_6$ - $C_{20}$  aryl,  $C_6$ - $C_{20}$  substituted aryl,  $C_6$ - $C_{20}$  arylalkyl,  $C_6$ - $C_{20}$  substituted arylalkyl, acyloxymethyl esters  $-\text{CH}_2\text{C}(=\text{O})\text{R}^9$  and acyloxymethyl carbonates  $-\text{CH}_2\text{C}(=\text{O})\text{OR}^9$  where  $R^9$  is  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  substituted alkyl,  $C_6$ - $C_{20}$  aryl and  $C_6$ - $C_{20}$  substituted aryl; and  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are independently H or  $C_1$ - $C_6$  alkyl; and, in formula 2, B is cytosine or a 5-halocytosine.

E5. A composition of embodiment D 4 wherein, in formula 1,  $R^1$  and  $R^2$  are independently selected from H, acyloxymethyl esters  $-\text{CH}_2\text{C}(=\text{O})\text{R}^9$  and acyloxymethyl carbonates  $-\text{CH}_2\text{C}(=\text{O})\text{OR}^9$  where  $R^9$  is  $C_1$ - $C_6$  alkyl; and  $R^3$ ,  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are independently H or  $C_1$ - $C_6$  alkyl; and, in formula 2, B is cytosine or a 5-halocytosine and R is H.

F6. A composition of embodiment E5 wherein, in formula 1,  $R^1$  and  $R^2$  are independently selected from H and  $-\text{CH}_2\text{C}(=\text{O})\text{OCH}(\text{CH}_3)_2$ ;  $R^3$  is  $-\text{CH}_3$ ; and  $R^4$ ,  $R^5$ ,  $R^6$  and  $R^7$  are H; and, in formula 2, B is 5-fluorocytosine and R is H.

G7. A pharmaceutical composition comprising a pharmaceutically effective amount of [2-(6-amino-purin-9-yl)-1-methyl-ethoxymethyl]-phosphonic acid diisopropoxycarbonyloxymethyl ester fumarate (tenofovir disoproxil fumarate) or a physiologically functional derivative thereof and a pharmaceutically effective amount of (2R, 5S)-4-amino-5-fluoro-1-(2-hydroxymethyl-1,3-oxathiolan-5-yl)-(1H)-pyrimidin-2-one (emtricitabine) or a physiologically functional derivative thereof; and a pharmaceutically acceptable carrier.

H8. A pharmaceutical formulation of embodiment A1 to G7 further comprising a third active ingredient selected from the group consisting of a protease inhibitor, a nucleoside or nucleotide reverse transcriptase inhibitor, a non-nucleoside reverse transcriptase inhibitor, and an integrase inhibitor.

I9. A pharmaceutical formulation of embodiments A1 to H8 in unit dosage form.

J10. A method for the treatment or prevention of the symptoms or effects of an HIV infection in an infected animal which comprises administering to said animal a pharmaceutical composition of embodiments claims A1 to I9.

The invention claimed is:

1. A fixed-dose combination comprising 300 mg of tenofovir disoproxil fumarate and 200 mg of emtricitabine wherein the combination exhibits equal to or less than 5% degradation of the tenofovir disoproxil fumarate and emtricitabine after six months at 40° C./75% relative humidity when packaged and stored with silica gel desiccant, and wherein the fixed-dose combination is a tablet.

2. The fixed-dose combination of claim 1 where there is less than 10% degradation of tenofovir disoproxil fumarate over a 24-hour period.